



## CRITICAL THINKING ACTIVITY: A LIVESTOCK DILEMMA

**OBJECTIVES:** Students will:

- ✚ Read and discuss an article about ruminant animals' contributions to the global  $\text{CH}_4$  concentration;
- ✚ Evaluate the process used to measure methane emissions from ruminant animals;
- ✚ Calculate the average amounts of  $\text{CH}_4$  contributed by different animal species on a daily basis

**MATERIALS:** Copy of **Student Sheets**, pencil, calculator, copy of article "Sheep's breath: How sweet thou art!"

### PROCEDURE:

1. Read and discuss the article "Sheep's breath: How sweet thou art!" with the class. Review any new words or concepts and present questions to test comprehension.
2. Have students study the **DATA TABLES** of methane measurements from cows and sheep.
  - ✚ Ask students to share their observations of the data and why they think the data appears as it does.
3. Student should complete the data tables by computing the average  $\text{CH}_4$  g/hr for each animal.
4. Students should then complete the activity by answering the questions in the **ANALYSIS** section.